

What is claimed is:

Sub
A4-1

A truck/trailer box sidewall, comprising:

a horizontally elongated bottom sidewall panel having a top edge, a bottom edge, inside and outside, vertical side skins, and a plurality of vertically spaced apart, horizontal webs interconnecting the side skins vertically between the top and bottom edges;

said side skins and said webs together defining a plurality of horizontally elongated inner spaces in said bottom sidewall panel, each said inner space being defined horizontally between the two side skins and vertically between two webs;

a horizontally elongated side rail extending laterally inwardly from the inside side skin of the sidewall panel at a location spaced above the bottom edge, said side rail having a bottom surface that forms a nook with a lower side surface of the inside side skin that extends downwardly from the bottom surface of side rail; and

wherein the top and bottom edges, the inside and outside vertical side skins, the horizontal webs and the side rail are all portions of a common extrusion.

2. The truck/trailer sidewall of claim 1, further comprising a horizontally elongated top sidewall panel and a plurality of horizontally elongated intermediate sidewall panels that are positioned vertically between the top sidewall panel and the bottom sidewall panel, wherein the top sidewall panel has a top portion, a bottom edge, inside and outside vertical side skins, and a plurality of vertically spaced apart horizontal webs interconnecting the vertical side skins, and wherein the intermediate sidewall panels have top and

10 bottom edges, inside and outside vertical side skins, and a plurality of vertically spaced apart horizontal webs interconnecting the vertical side skins; and

wherein the bottom edge of the top sidewall panel is connected to the top edge of an adjacent intermediate wall
15 panel that is below it, and the top edge of the bottom wall panel is connected to the bottom edge of an adjacent intermediate sidewall panel that is above it; and

wherein when the top sidewall panel, the bottom sidewall panel and the intermediate sidewall panels are all connected
20 together, the outside vertical side skins of all of said panels are substantially coplanar and the inside vertical side skins of all of said wall panels are substantially coplanar.

3. The truck/trailer box sidewall of claim 1, further comprising a horizontally elongated bottom side rail extending laterally outwardly from the inside side skin of the sidewall at a location adjacent the bottom edge, wherein the two side
5 rails and the lower side surface of the inside side skin that extends downwardly from the first side rail to the second side rail form a channel shaped nook adapted to receive an end portion of transverse beams that are a part of a bottom for the truck/trailer box.

Sub
25 4. The truck/trailer box sidewall of claim 1, wherein the first mentioned side rail has a concave upper surface.

4 5. The truck/trailer box sidewall of claim 2, wherein the side rail is integral with the inside side skin of the bottom sidewall panel and projects laterally from the inside, vertical side skin.

6. A truck/trailer box sidewall, comprising:

a horizontally elongated top sidewall panel having a top portion, a bottom edge, inside and outside, vertical side skins, a plurality of vertically spaced apart, horizontal webs interconnecting the side skins vertically between the top portion and bottom edge;

said side skins and said webs together defining a plurality of horizontally elongated inner spaces in said top sidewall panel, each said inner space being defined horizontally between the two side skins and vertically between two webs;

the top portion includes a top rail extending longitudinally of the top sidewall panel, said top edge rail being wider than the top sidewall panel and including a vertical outside skin, a vertical inside skin, a top skin and a bottom skin, and at least one web extending between the side skins and dividing the top rail into inner spaces; and

wherein the top rail and bottom edges, the inside vertical side skins of the top sidewall panel, the outside vertical side skins, the top skins and the bottom skins of the top rail, the horizontal webs in the top sidewall panel, and the horizontal webs in the top rail are all portions of a common extrusion.

5. A truck/trailer box sidewall, comprising:

a lower, horizontally elongated, first sidewall panel having a top edge, vertical inside and outside side skins, and vertically spaced apart horizontal webs interconnecting the side skins vertically below the top edge and horizontally between the two side skins;

an upper, horizontally elongated, second sidewall panel having a lower edge, vertical inside and outside side skins,

and horizontal webs interconnecting the side skins together
10 vertically above the bottom edge and horizontally between the
two side skins;

said inside and outside skins of the first and second
sidewall panels being too thin to be welded;

one of said top edge and said bottom edge including a
15 longitudinal groove and the other including a longitudinal
tongue that extends into the groove when the top and bottom
edges are in contact;

said first sidewall panel having corner regions that
extend diagonally between the side skins and the top edge of
20 the first wall section;

said second sidewall panel having corner portions that
extend diagonally between the side skins of the second
sidewall section and the bottom edge of the second sidewall
section;

25 said corner regions together forming horizontally
extending weld recesses where the corner regions of the first
sidewall panel adjoin the corner regions of the second
sidewall panel when the top and bottom edges are in contact;

said corner regions of the first and second sidewall
30 panels, being thick enough at the weld recesses to permit the
placement of weld beads in the weld recesses; and

weld beads in the weld recesses welding the upper edge of
the first sidewall panel to the lower edge of the second
sidewall panel.

6. The truck/trailer box sidewall of claim 5, wherein
the first sidewall panel is an intermediate sidewall panel and
the second sidewall panel is a top sidewall panel, said top
side panel including a top rail having an inside skin, an
5 outside skin, a top skin, a bottom skin and at least one web

extending between the inside and outside skins and dividing the top rail into inner spaces.

1. The truck/trailer box sidewall of claim 5, wherein the first sidewall panel is a bottom sidewall panel and the second sidewall panel is an intermediate sidewall panel, and wherein the first sidewall panel has a horizontally elongated side rail extending laterally outwardly from the inside side skin, and said side rail has a bottom surface that forms a nook with a lower side surface of the inside side skin that extends downwardly from the bottom surface of the side rail.

8. A trailer box sidewall, comprising:
a horizontally elongated top sidewall panel having a top portion, a bottom edge, inside and outside vertical side skins, and a plurality of vertically spaced apart, horizontal webs interconnecting a side skin vertically between the top portion and the bottom edge;

a horizontally elongated bottom sidewall panel having a top edge, a bottom portion, inside and outside, vertical side skins, and a plurality of vertically spaced apart, horizontal webs interconnecting the side skins vertically between the top edge and the bottom portion; and

a plurality of horizontally elongated intermediate sidewall panels that are positioned vertically between the top sidewall panel and the bottom sidewall panel, said intermediate sidewall panels each having top and bottom edges, inside and outside vertical side skins, and a plurality of vertically spaced apart horizontal webs interconnecting the vertical side skins;

wherein the top sidewall panel has corner regions adjacent its lower edge, the intermediate sidewall panels have

corner regions adjacent their upper and lower edges, and the bottom sidewall panel has corner regions adjacent its upper edge;

25 wherein said corner regions form horizontally extending weld bead receiving recesses where the lower edge of the top sidewall panel meets the upper edge of the intermediate panel below it, where top and bottom edges of intermediate panels join, and where the lower edge of the lowermost intermediate panel and the top edge of the bottom sidewall panel meet;

30 wherein said corner regions of the sidewall panels are thick enough at the weld recesses to permit the placement of weld beads in the weld recesses; and

weld beads in the weld recesses welding the adjacent sidewall panels together to form a trailer box sidewall.

9 11. The trailer box sidewall of claim 8, wherein the top portion of the top sidewall panel is a sidewall rail that extends the length of the top sidewall panel.

10 12. The trailer box sidewall of claim 9, wherein the top rail, the bottom edge, the inside and outside vertical side skins and the horizontal webs of the top sidewall panel are all portions of a common extrusion.

Sub
Alc 13. A truck/trailer box, comprising:

5 a pair of horizontally elongated bottom sidewall panels, each having a top edge, a bottom edge, inside and outside, vertical side skins, and a plurality of vertically spaced apart, horizontal webs interconnecting the side skins vertically between the top and bottom edges;

said side skins and said webs together defining a plurality of horizontally elongated inner spaces and each said

bottom sidewall panel, each said inner space being defined
10 horizontally between the two side skins and vertically between
two webs;

each bottom sidewall panel including a horizontally
elongated side rail extending laterally inwardly from the
inside side skin of the sidewall at a location spaced above
15 the bottom edge, each said side rail having a bottom surface
that forms a nook with a lower side surface of the inside side
skin that extends downwardly from the bottom surface of the
side rail; and

a plurality of longitudinally spaced apart, transverse
20 floor beams having opposite end portions that are situated in
said nooks.

14. The truck/trailer box of claim ~~13~~, wherein each
bottom sidewall panel includes a second horizontally elongated
side rail extending laterally inwardly from the inside side
skin of the sidewall panel at a location spaced below the
5 first mentioned side rail, wherein the two side rails and the
side portions of the sidewall panel extending between the side
rails form inwardly opening longitudinal channels, and end
portions of the transverse bottom beams are received within
said channels.

¹²
~~15~~. The truck/trailer box of claim ¹¹~~13~~, further
comprising longitudinal support and guide beams on top of the
transverse floor frame beams, bearings on the longitudinal
support and guide beams, and conveyor slats on said bearings.

¹³
~~16~~. The truck/trailer box of claim ¹²~~15~~, wherein the
outside conveyor slat on at least one side of the

